

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the subject application.

1. (Currently Amended) A semiconductor manufacturing apparatus comprising:

a plasma generating device for generating a plasma;
a first chamber for performing a plasma treatment on a first part of an object by the plasma therein under atmospheric pressure or approximate to atmospheric pressure;
a rail for sliding the plasma generating device, the rail provided in the first chamber; and
an ink-jet device for applying a droplet to a second part of the object simultaneously with performing the plasma treatment,

wherein the plasma generating device is provided in the first chamber,
wherein the ink-jet device is provided in a second chamber; and
wherein the object is level transferred in the first chamber along a first direction and the plasma generating device is moved in the first chamber along the rail and along a second direction intersecting with the first direction and in a direction parallel to a side of the object.

2. (Canceled)

3. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1, wherein the first direction is a unidirection.

4. (Currently Amended) A semiconductor manufacturing apparatus according to claim 1, wherein the object is level transferred continuously or with the use of step-feed.

5. (Withdrawn) A semiconductor manufacturing apparatus comprising a means for transferring an object to be processed, a plurality of plasma generating means for performing film formation treatment, etching treatment or ashing treatment,

wherein the plurality of plasma generating means are arranged in the intersecting direction with a transferring direction of the object to be processed, and

wherein film formation treatment, etching treatment or ashing treatment is performed on the object to be processed by transferring of the object to be processed and generating plasma in at least one of the plurality of plasma generating means.

6. (Withdrawn) A semiconductor manufacturing apparatus according to claim 5, wherein the plasma generating means has a structure which is performed under atmospheric pressure or approximate to atmospheric pressure.

7. (Withdrawn) A semiconductor manufacturing apparatus according to claim 5, wherein the means for transferring the object to be processed has a structure to transfer the object to be processed unidirectionally.

8. (Withdrawn) A semiconductor manufacturing apparatus according to claim 5, wherein the means for transferring the object to be processed has a structure to perform continuous or step-feed.

9. (Currently Amended) A semiconductor manufacturing apparatus comprising:
a first plasma generating device for generating a first plasma;
a second plasma generating device for generating a second plasma;
a first chamber for performing a first plasma treatment on a first part of an object by the first plasma therein under atmospheric pressure or approximate to atmospheric pressure;
a second chamber for performing a second plasma treatment on the object by the second plasma therein under atmospheric pressure or approximate to atmospheric pressure; and
an ink-jet device for applying a droplet to a second part of the object simultaneously with performing the first plasma treatment,

wherein the first plasma generating device is provided in the first chamber and the second plasma generating device is provided in the second chamber,

wherein the ink-jet device is provided in a third chamber,

wherein the object is level transferred in the first chamber, the second chamber and the third chamber along a first direction and the first plasma generating device is moved in the first

chamber along a second direction intersecting with the first direction and in a direction parallel to a side of the object.

10. (Currently Amended) A semiconductor manufacturing apparatus according to claim 9, wherein the applying of the droplet is performed to a surface of the second part of the object under atmospheric pressure or approximate to atmospheric pressure.

11. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9, wherein the first direction is a unidirection.

12. (Currently Amended) A semiconductor manufacturing apparatus according to claim 9, wherein the object is level transferred continuously or with the use of step-feed.

13. (Withdrawn) A semiconductor manufacturing apparatus according to claim 9, wherein the droplet is an organic solvent containing organic resin or metal element.

14. (Withdrawn) A semiconductor manufacturing apparatus comprising a means for transferring an object to be processed, a plurality of droplet spraying means for spraying a droplet onto the surface of the object to be processed,

wherein the plurality of droplet spraying means are arranged in the intersecting direction with a transferring direction of the object to be processed,

and a droplet is attached to the object to be processed by the transfer of the object to be processed and spraying a droplet from at least one of the plurality of droplet spraying means.

15. (Withdrawn) A semiconductor manufacturing apparatus according to claim 14, wherein the droplet is attached under atmospheric pressure or adjacent to atmospheric pressure.

16. (Withdrawn) A semiconductor manufacturing apparatus according to claim 14, wherein the means for transferring the object to be processed has a structure to transfer the object to be processed unidirectionally.

17. (Withdrawn) A semiconductor manufacturing apparatus according to claim 14, wherein the means for transferring the object to be processed has a structure to perform continuous or step-feed.

18. (Withdrawn) A semiconductor manufacturing apparatus according to claim 14, wherein the droplet is an organic solvent containing organic resin or a metal element.

19. (Currently Amended) A semiconductor manufacturing apparatus comprising:

at least one plasma generating device for generating a plasma;
a first chamber for performing a plasma treatment on a first part of an object by the plasma therein under atmospheric pressure or approximate to atmospheric pressure;
a rail for sliding the plasma generating device, the rail provided in the first chamber; and
at least one ink-jet device for applying a droplet to a second part of the object simultaneously with performing the plasma treatment;
wherein the plasma generating device is provided in the first chamber,
wherein the ink-jet device is provided in a second chamber,
wherein the object is level transferred in the first chamber along a first direction and the plasma generating device is moved in the first chamber along the rail and along a second direction intersecting with the first direction and in a direction parallel to a side of the object, and
wherein the ink-jet device is moved in the second chamber along a third direction intersecting with the first direction.

20. (Currently Amended) A semiconductor manufacturing apparatus according to claim 19, wherein the plasma treatment is performed by the plasma generating device for forming a film over the first part of the object, etching the first part of the object or ashing the first part of the object.

21. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19, wherein the first direction is a unidirection.

22. (Currently Amended) A semiconductor manufacturing apparatus according to claim 19, wherein the object is level transferred continuously or with the use of step-feed.

23. (Canceled)

24. (Withdrawn) A semiconductor manufacturing apparatus comprising a means for transferring an object to be processed, a plurality of plasma generating means for performing film formation treatment, etching treatment or ashing treatment on the object to be processed, a plurality of droplet spraying means for attaching a droplet on the object to be processed,

wherein the plurality of plasma generating means are arranged in the intersecting direction with a transferring direction of the object to be processed,

wherein the plurality of the droplet spraying means are arranged in the intersecting direction with a transferring direction of the object to be processed,

wherein the film formation treatment, the etching treatment or the ashing treatment is performed on the object to be processed by the transfer of the object to be processed and generating plasma in at least one of the plurality of plasma generating means, and

wherein attach the droplet on the object to be processed by the transfer of the object to be processed and spraying the droplet from the droplet spraying means.

25. (Withdrawn) A semiconductor manufacturing apparatus according to claim 24, wherein the film formation treatment, the etching treatment or the attachment of the droplet is performed under atmospheric pressure or adjacent to atmospheric pressure.

26. (Withdrawn) A semiconductor manufacturing apparatus according to claim 24, wherein the means for transferring the object to be processed has a structure to transfer the object to be processed unidirectionally.

27. (Withdrawn) A semiconductor manufacturing apparatus according to claim 24, wherein the means for transferring the object to be processed has a structure to perform

continuous or step-feed.

28. (Withdrawn) A semiconductor manufacturing apparatus according to claim 24, wherein a plurality of treatment selected from the film formation treatment, the etching treatment, the ashing treatment or the attachment treatment of the droplet are performed simultaneously.

29. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1, wherein the plasma treatment is performed by the plasma generating device for forming a film over the object, etching the object, or ashing the object.

30. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1, wherein the plasma treatment is performed by the plasma generating device while transferring the object and moving the plasma generating device.

31. (Currently Amended) A semiconductor manufacturing apparatus according to claim 9, wherein the droplet is attached onto a surface of the second part of the object while transferring the object and moving the ink-jet device.

32. (Canceled)

33. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19, wherein the plasma treatment is performed by the plasma generating device while transferring the object and moving the plasma generating device.

34. (Currently Amended) A semiconductor manufacturing apparatus according to claim 19, wherein the applying of the droplet is performed to a surface of the second part of the object under atmospheric pressure or approximate to atmospheric pressure.

35-36. (Canceled)

37. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19, wherein the droplet is an organic solvent containing resin or metal element.

38. (Currently Amended) A semiconductor manufacturing apparatus according to claim 19, wherein the droplet is attached onto a surface of the second part of the object while transferring the object and moving the ink-jet device.

39. (Canceled)

40. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9, wherein each of the first plasma treatment and the second plasma treatment is performed for forming a film over the object, etching the object, or ashing the object.

41. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the plasma generating device comprises a first electrode and a second electrode for generating a plasma between the first electrode and the second electrode, and the first electrode and the second electrode have a nozzle-shaped opening.

42. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein each of the first plasma generating device and the second plasma generating device comprises a first electrode and a second electrode for generating a plasma between the first electrode and the second electrode, and the first electrode and the second electrode have a nozzle-shaped opening.

43. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein the ink-jet device comprises a nozzle provided with a hole for pushing out the droplet from the hole.

44. (Previously Presented) A semiconductor manufacturing apparatus according to claim

19 wherein the plasma generating device comprises a first electrode and a second electrode for generating a plasma between the first electrode and the second electrode, and the first electrode and the second electrode have a nozzle-shaped opening.

45. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the ink-jet device comprises a nozzle provided with a hole for pushing out the droplet from the hole.

46. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the object comprises a glass.

47. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the object comprises a quartz.

48. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the object comprises a semiconductor.

49. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the object comprises a metal.

50. (Previously Presented) A semiconductor manufacturing apparatus according to claim 1 wherein the object comprises a ceramic.

51. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein the object comprises a glass.

52. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein the object comprises a quartz.

53. (Previously Presented) A semiconductor manufacturing apparatus according to claim

9 wherein the object comprises a semiconductor.

54. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein the object comprises a metal.

55. (Previously Presented) A semiconductor manufacturing apparatus according to claim 9 wherein the object comprises a ceramic.

56. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the object comprises a glass.

57. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the object comprises a quartz.

58. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the object comprises a semiconductor.

59. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the object comprises a metal.

60. (Previously Presented) A semiconductor manufacturing apparatus according to claim 19 wherein the object comprises a ceramic.